

## Original Research Article

# Prevalence of substance abuse among adolescents in a higher secondary school in Thiruvananthapuram district

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### ABSTRACT

**Background:** Adolescence is a promising stage in life when the child matures into an adult. A period of sudden and rapid physiological, psychological and behavioural change. Substance abuse is one of the major challenges confronting adolescents. Objectives were to find out the prevalence and determinants of substance abuse among school students in Thiruvananthapuram district.

**Methods:** A cross-sectional study was conducted among the students of a higher secondary school in Thiruvananthapuram district. A cluster sampling method based on sections of classes in schools was used to conduct the study. Data was collected using a self-administered pretested semi structured questionnaire. The data collected was analysed using SPSS version 27.

**Results:** Among the 92 students, 63 (68.5 %) were males and 29 (31.5 %) were females. Of the study participants 14 (15.2%) had a history of substance usage and all of them were male students. Most commonly substance abused was alcohol 85.7% followed by tobacco 42.8%. According to the study most common reason for first attempt was found as curiosity (64%). A significant association was found between parents with a habit of substance use and substance use among adolescents ( $p < 0.05$ ).

**Conclusions:** Our study provides information on the prevalence of substance use among students, but the small sample size limits its generalizability. The identification of risk factors associated with substance use provides valuable insights for developing school-based prevention and intervention programs.

**Keywords:** Adolescents, School students, Substance abuse

## INTRODUCTION

Adolescence is a promising stage in life characterized by sudden and rapid physiological, psychological and behavioural change by virtue of which the child matures into an adult.<sup>1,2</sup> Considering these facts, adolescence is regarded as the most vulnerable stage of life.<sup>3</sup> Substance use is globally prevalent and remains an ongoing health crisis affecting every region in the world.<sup>4</sup> Substance abuse is one of the major challenges confronting adolescents.<sup>5,6</sup> According to the World Drug Report 2025, young people frequently report higher rates of substance use compared to older populations. Early to late

adolescence (ages 12-17) remains the peak window for first-time use.<sup>7</sup> Substance abuse is the use of a drug in amounts or by methods which are harmful to the individual or others. Commonly abused substances include tobacco, alcohol and psychotropic drugs like cannabis, cocaine and LSD.<sup>6</sup> Some people experiment with these for a short while, but others find it hard to give it up and gets addicted.<sup>9</sup> The consequences of the substance abuse include withdrawal and isolation, or on the other hand, violent conduct, emotional instability, neglecting studies and daily responsibilities.<sup>10,11</sup> India has the highest proportion of adolescent population (21%).<sup>8</sup> Despite such a large risk of substance use in this

population, the problem of substance use remains underestimated. According to Childline India, a nodal agency of the Union Ministry of Women and Child Development, the incidence of drug abuse among children and adolescents is higher than the general population.<sup>12,13</sup> This is especially true because adolescence is a period of experimentation and identity formation.

**Objectives**

The study aimed to estimate the prevalence and determinants of substance abuse among adolescents in a higher secondary school in Thiruvananthapuram district.

**METHODS**

A cross-sectional study was conducted among students of a higher secondary school in the Thiruvananthapuram district. Adolescents aged 13-18 were selected for the study in a simple random method. Permissions were obtained from the concerned authorities. The purpose of the study was explained to the students. After obtaining informed consent from parents and assent from students, they were included in the study. A sample size of 92 was calculated based on the prevalence of 23.2 % of substance abuse among school students, according to the study conducted by Batra et al.<sup>14</sup> The study was conducted during the period from September 2024 to October 2024. Data was collected using a self-rated pretested semi structured questionnaire which was explained to them in detail. Questionnaire included questions about socio-demographic characteristics pertained to student’s age, gender, religion, education of parents, occupation of parents, place of residence etc. Regarding alcohol consumption-age and reason for first consumption, drinking habit among parents and pattern of substance abuse were asked.

**Statistical analysis**

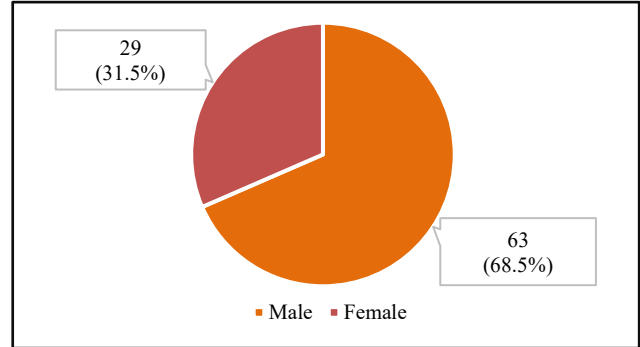
Data was entered into Microsoft excel and analysed using SPSS version 27. Categorical variables were expressed in percentages and quantitative variables in mean and standard deviation. The association between qualitative variables was assessed using Chi-square test. P<0.05 was considered significant for the study.

**RESULTS**

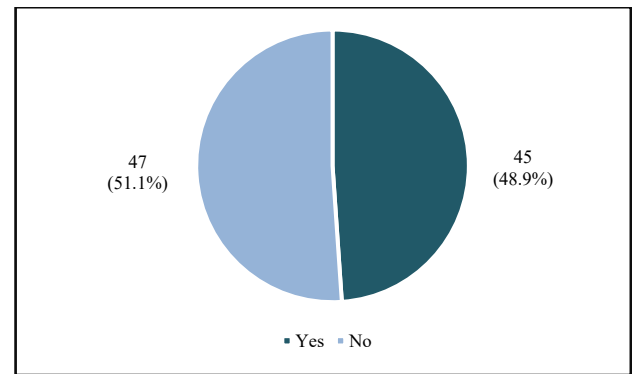
A cross-sectional study was conducted among 92 school students aged between 14 to 18 years in a higher secondary school of Thiruvananthapuram district.

Among the 92 students, 63 (68.5%) were males and 29 (31.5%) were females (Figure 1). Sixty-eight (74%) of study participants belongs to the below poverty line category while 24 (26%) belongs to APL category. Among the study participants, 73 (79.3%) of their fathers had received school education while 19 (20.7%) had

received college education. Among mothers 70 (76%) had got school education and 22 (24%) college education. Among their fathers, 7.6% were technicians or associate professionals, 81.6% skilled or unskilled labourers, and 10.8% of fathers were deceased. Among mothers, 38% are employed while 62% were home makers.



**Figure 1: Gender distribution of the study participants.**



**Figure 2: Substance abuse among family members.**

It was found that 45 (48.9%) of the family members of the study participants had the habit of substance usage (Figure 2).

Seventy-one students (77%) were aware of the substances that are commonly abused, sixty (65%) are aware about the routes of administration of substances.

Sixty-nine participants (75%) are aware about the complications of substance abuse. According to the study participants, depression (61%) and personality disorders (61%) were considered as the most common complications of substance abuse followed by suicidal tendency (53%) and anxiety (51%).

Of the study participants 14 (15.2%) had a history of substance usage and all of them were male students (Figure 3). The mean age first attempt was 14.63±1.25 years. The minimum age of first attempt was 12 years. Of the 14 students having the history of substance use, 12 (85.7%) consumed alcohol, 6 (42.8%) used tobacco, 1 (7.14) used pan masala (Figure 4).

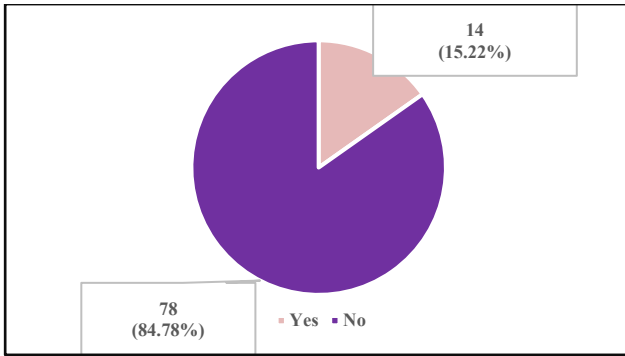


Figure 3: Ever used substance.

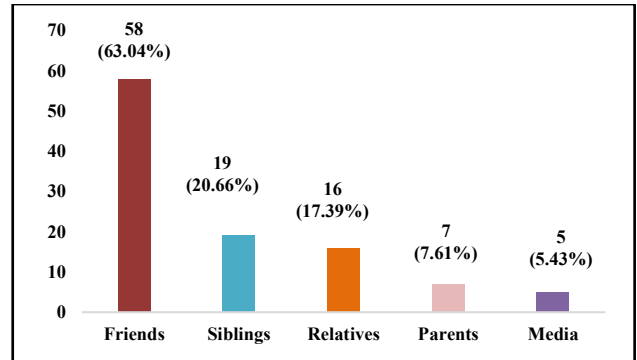


Figure 6: Influential factors for substance abuse.

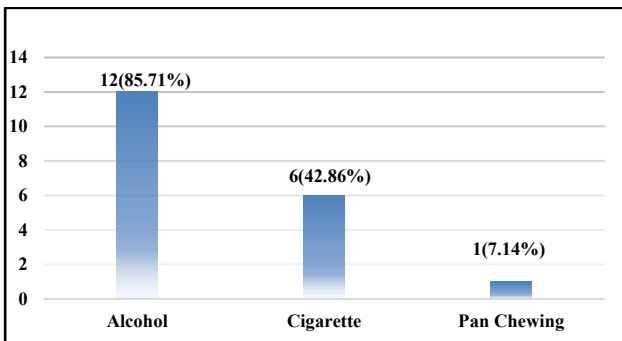


Figure 4: Substance abused (n=14).

According to the study most common reason for first attempt was found as curiosity 8 (57.1%), five (37.7%) used it to achieve a feeling of happiness, and one (7.2%) of them used it for improved memory during exams (Figure 5).

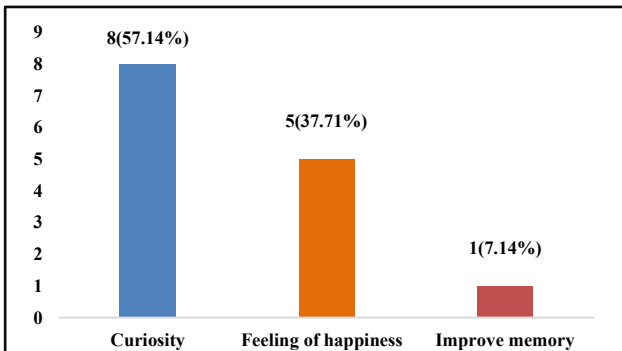


Figure 5: Reason for first attempt (n=14).

Friends 58 (67.4%) was found to be the most common influencers for substance use, followed by siblings 19 (18.5%). Other influencing factors reported were relatives 16 (17.4%), parents 7 (7.6%) and media 5 (5.4%) (Figure 6). Family disruption and family members with habit of substance abuse was found as the most common risk factor for substance usage.

Substance use was found significantly higher among those students with family member having habit of substance use.

## DISCUSSION

In our study, of the 92 students 15.2% had ever used any of the substances (alcohol, tobacco, pan chewing). Where as in the study conducted by Batra et al and Ningombam et al the prevalence of substance use were 23.2% and 54% respectively.<sup>14,15</sup> Most commonly abused substance was alcohol (85.7%) followed by tobacco (42.8%) and curiosity was reported as the most common driving factor for first attempt these findings were similar to the study conducted by Raphael et al.<sup>16</sup>

According to our study the minimum age of first attempt was found as 12 years. In the study conducted by Batra et al, Saxena et al and Sarangi et al the minimum age of first attempt reported was around 13-15 years.<sup>14,17,18</sup> Where as in the study conducted by Raphael et al it was found to be 5 years.<sup>16</sup>

In our study substance abuse was reported higher among boys which was similar to the study conducted by Ningombam et al.<sup>15</sup>

Substance use among family members was found to be a significant risk factor for substance usage among students. These findings were similar to the study done by Batra et al, Mohanan et al and Ningombam et al which showed factors such as substance use among family members were found to be influential.<sup>14,15,19</sup>

In our study the commonly abused substance was alcohol, whereas in the study by Batra et al and Ningombam et al tobacco was the most commonly abused substance and, in the study done by Saxena et al, pan masala was the most common substance abused.<sup>14,15,17</sup>

Adolescents with both parents alive showed a higher percentage of substance abuse in our study similar to the study by Saxena et al whereas in the study by Benegal et al substance abuse was reported more among children from broken families.<sup>17,20</sup>

In our study friends were found to be most common influencer for substance usage similar to the findings reported by Sarangi et al.<sup>18</sup>

Our study provides information on the prevalence of substance abuse among students, but the small sample size limits the generalization of the findings. Even though the prevalence of substance abuse among school students in our study was found to be 15.2%, this might not be a reflection of the actual number, as there may be many students who were not willing to disclose the details regarding substance abuse.

## CONCLUSION

The identification of risk factors associated with substance usage provides valuable insights for the development and strengthening of school-based prevention and intervention programs to be implemented as a part of the school health programmes. Family and schools have a pivotal role in eliminating these unhealthy habits during adolescence.

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